



## NextSTEP Question and Answer Log

**FROM THE NOV. 6, 2014 VIRTUAL INDUSTRY DAY FORUM:** The following questions and answers are paraphrased from the verbal discussion and may not completely capture all details.

1. **Q:** Will slides be available? Will there be a recording of the presentation?  
**A:** Yes, slides are available at the NextSTEP website: [www.nasa.gov/nextstep](http://www.nasa.gov/nextstep). There is no recording available for release.
2. **Q:** Are multiple proposals allowed?  
**A:** Yes, please submit separate proposals for separate thrust areas.
3. **Q:** Please clarify the bidding process for EM-1 slots. It's understood there's no money attached, just the launch itself. When is EM-1 launch?  
**A:** Appendix C of this BAA defines the requirements for selecting proposals for secondary payload missions for EM-1. There is some funding available. When preparing proposals, do not apply any corporate contributions for the value of the launch since it will be government furnished capability.  
  
EM-1 launch is no earlier than Fall 2017, or early 2018.
4. **Q:** Are the Systems Concept and Capabilities sections combined restricted to 15 pages?  
**A:** Yes.
5. **Q:** On the quad chart, is total cost referring to 1<sup>st</sup> phase?  
**A:** Yes. The total cost referred to NASA and Corporate Resources.
6. **Q:** How precise does cost need to be?  
**A:** The costs need to be as precise as possible since these costs will become the fixed price of any resultant contract awarded. The proposal may contain estimates of lower fidelity for follow-on phases, but NASA expects these estimates would become more precise particularly if the follow-on efforts were also awarded on a fixed priced basis.
7. **Q:** How many resumes are required?  
**A:** The number of resumes is a business decision.
8. **Q:** What are the design trades of the ARV?  
**A:** They will be posted on the website: [www.nasa.gov/nextstep](http://www.nasa.gov/nextstep)
9. **Q:** Can you expand on the concept trades for getting from LEO and cislunar to Mars?



**A:** Yes, the concept trades are contained in the Evolvable Mars Concept (EMC) charts, which will be posted to the website: [www.nasa.gov/nextstep](http://www.nasa.gov/nextstep)

**10. Q:** What is the Asteroid Redirect Vehicle (ARV) orbit?

**A:** Distant Retrograde Orbit (DRO)

**11. Q:** What does 50% minimum corporate resources mean?

**A:** Corporate contributions must be greater or equal to the proposed price, resulting in a corporate contribution of at least 50% of the total effort. See section 3.3 of the amended BAA for more specifics on corporate contributions.

**12. Q:** Do state and local funds count?

**A:** Please refer to the amended Section 3.3, Corporate Resources

**13. Q:** What about corporate sponsorship passed through from the Government?

**A:** No, these would not count towards corporate resources.

**14. Q:** For habitation, is NASA interested in microgravity habitation or planetary habitation systems?

**A:** NASA is primarily focused on in-space habitation (microgravity).

**15. Q:** If they have partners (non-government), will their contributions count?

**A:** Yes. Non-government co-proposers contributions count as corporate contributions.

**16. Q:** Can the 6U be two 3U CubeSats?

**A:** No

**17. Q:** Please clarify use of specialized government facilities.

**A:** Use and cost need to be included in the proposal. Any proposed use of a Government facility will be treated as Government resources and will need to be offset in the corporate resources area. Refer to amended Section 3.3, Corporate Resources.

**18. Q:** is there a statute of limitations on how long the investment in facilities counts?

**A:** Please refer to the amended Section 3.3, Corporate Resources

**19. Q:** Are universities eligible to fill the role of the private partner?

**A:** Yes, refer to the amended Section 3, Eligibility Information.

**20. Q:** Jason, a number of folks are interpreting the announcement of a forthcoming NextSTEP BAA description to mean that the Advanced Propulsion Systems and Habitation Systems tests must also fit as a secondary payload on the first flight of the SLS. I interpret it differently. I believe it means you are going to solicit ideas for small satellite missions as secondary payloads on the first flight of SLS AND you are soliciting ideas for advanced



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propulsion systems and habitation systems that do not necessarily need to fly on the SLS, but might be launched with a different launch vehicle. Can you help clarify this? Thanks!

[This question was asked after posting of the synopsis just before posting the BAA.]

**A:** Yes, your interpretation is correct.

**21. Q:** Can NASA civil servants or JPL employees participate in any way with a non-Government U.S. Institution on their proposal? Can NASA civil servants or JPL employees be funded (e.g., via a Space Act Agreement) by the proposal submitted by a non-Government U.S. Institution if they are selected?

**A:** Yes, refer to the amended Section 3, Eligibility Information. Any proposed effort from a Government team member will be treated as Government resources and will need to be offset in the corporate resources area.

**Q:** Is the prior investment rule for the entire proposal, or, will each organization participating in a proposal need to claim some sort of cost or in kind contribution or investment?

**A:** Please refer to the amended Section 3.3, Corporate Resources. The corporate resources is based on the entire proposed effort.

**22. Q:** Can prior government investment be counted toward the 50% rule?

**A:** No. Please refer to the amended Section 3.3, Corporate Resources.

**23. Q:** Can prior investment of internal Center funds be counted toward the 50% rule?

**A:** No

**E-MAILED QUESTIONS:**

**24. Q:** Private matching funds seem to be given strong consideration in this BAA. Private funding can vary significantly over the course of 3 or 4 years and can be difficult to predict in advance. Can the milestone funding profile or project scope initially proposed to this BAA be flexible in future years to take advantage of any additional private capital investment that might accelerate the schedule or enhance the scope?

**A:** The costs need to be as precise as possible since these costs will become the fixed price of any resultant contract awarded. The proposal may contain estimates of lower fidelity for follow-on phases, but NASA expects these estimates would become more precise particularly if the follow-on efforts are also awarded on a fixed priced basis.

**25. Q:** May the specific impulse be fixed at any value in the range of interest, 2000 to 5000 seconds, for the 100 hour continuous testing?

**A:** The objectives for the Advanced Propulsion thrust are defined in Appendix A of the BAA. NASA will evaluate the proposed approach according to the evaluation criteria defined in the BAA.



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**26. Q:** Please clarify eligibility requirements relative to NASA CS, and FFRDC's. Yes/No - can NASA CS's, and DOD FFRDC employees participate in a proposal? Is the prohibition related to leading a proposal, or are they not eligible, in any manner or form, to participate as team members in a proposal?

**A:** Please refer to the amended Section 3, Eligibility Information

**27. Q:** In Section 3 Eligibility Information, the BAA says "NASA civil servants and Jet Propulsion Laboratory (JPL) employees may not propose to this solicitation topic." Based on this it was our understanding that NASA civil servants and JPL employees cannot lead a proposal, but could participate in a proposal as a partner to a non-Government U.S. institution (companies, universities, and nonprofit organizations) and foreign institution. However, during the BAA virtual event today November 6<sup>th</sup> [sic], the material briefed stated "U.S. Federal, state, and local government entities, including National Laboratories, Jet Propulsion Laboratory (JPL) employees, NASA Civil Servants and Federally Funded Research and Development Centers are not eligible to participate in proposals"

The material shown during the virtual event appears to be a significant change from what is written in the BAA and excludes a large community of potential participants.

**A:** Please refer to the amended Section 3, Eligibility Information

**28. Q:** Please clarify the allowed participation of NASA employee experts on this BAA. During the briefing, it was clarified that NASA employees, etc... could participate on teams, but not be primes. We would like to confirm that if NASA employees join our team, they can propose work and be compensated through this program if we should win. In addition, we are considering NASA conceptual hardware on a proposal – can hardware be developed at NASA centers for this program? We assume it would be an inter-agency, no transfer of funds agreement. This also assumes that we must declare what this value is, etc... If all of this is yes, does the 50% cost share also remain true for the inter-agency funding?

**A:** Please refer to the amended Section 3, Eligibility Information and Section 3.3, Corporate Resources.

**29. Q:** Regarding the Small Satellites Addressing Strategic Knowledge Gaps element of the recently released NextSTEP BAA, we would like to know: When could the CubeSats be released along the EM-1 trajectory (relative to the Moon and relative to the release of Orion)?

**A:** A briefing entitled "*Secondary Payloads Overview*" has been posted to the NextSTEP BAA website at: <http://www.nasa.gov/sites/default/files/files/Secondary-Payloads-Overview-Rev2.pdf>. The briefing contains additional information about potential secondary payload deployment windows.

**30. Q:** Could you please confirm that for a Habitation Systems proposal, Section VII (Price Proposal), and the Proposed Technical and Payment Milestones, all should reflect the 6-12 month initial phase to create the final concept studies, concept of operations, as well as a SOW, schedule and cost estimate for additional further development; and that the costs of the actual activity that would be studied and developed during the 6-12 month initial period could be



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estimated in Sections III and IV where the proposed system concept and technical approach are described, again, leaving Section VII and all other pricing information to reflect exclusively the 6-12 month initial period.

**A:** The price proposal in section VII shall include the overall firm fixed price for the work being proposed in the initial phase. Sections III and IV are the System Concept and Technical approach descriptions respectively. Those sections should be focused on the proposed initial phase, but may contain references to follow-on phases for context. The deliverables of the initial phase shall include the concept study, concept of operations, or technology investigation report as well as a SOW, cost estimates, and schedules for potential further development.

**31. Q:** My understanding of the 50% corporate contribution is that the proposer must show they have contributed an amount greater than or equal to the funding being requested. So if the proposal is requesting \$1 million in government funds, than the equivalent amount must be shown as contributed by the Corp. in the forms described (labor, travel, IRAD, etc...). Is this understanding correct? The alternate interpretation is if the proposer is requesting \$1 million in government funds, than the corporation must show a contribution of a least \$500,000.

**A:** The former understanding is correct, corporate contributions must be greater or equal to the proposed price, resulting in a corporate contribution of at least 50% of the total effort. See section 3.3 of the amended BAA for more specifics on corporate contributions.

**32. Q:** The eligibility clause states prior IRAD funds are deemed acceptable for this effort. Is there a time window allowing credit of prior IRAD spending? 1 year? 5 years? Or can the credit be applied to all prior relevant IRAD projects that contribute to this proposal?

**A:** Yes, amended Section 3.3 of the BAA indicates to count as part of a corporate resource prior investments needs to occur within 5 years of the award under the BAA.

**33. Q:** Are SBIR funds also applicable towards this 50% corporate contribution requirement, and if so, is there a time limit on those?

**A:** SBIR funds originating from previous federally funded efforts are not applicable toward private corporate contributions. Any corporate resources devoted to those previous effort would count toward the 50% requirement if those resources will provided in the last five years. See the amended section 3.3, Corporate Resources.

**34. Q:** I assume that in the Price Proposal section, we will use text to detail the current and past expenditures that make up the minimum 50% contractor cost share.  
How do you want the cost share handled in the specified "Price Proposal Format" table? For example, if we have spent \$50,000 on NRE in 2013-14 for Widget A. The unit cost of the next production Widget A will be \$20,000. Should the cost of Widget A in the ODCs be \$70K with an offset of \$50K for past costs in the profit (loss) line? Or should we just show the \$20K production cost and use text to take credit for the NRE?

**A:** No, the Price Proposal Format contained in Appendix D is to capture the price of the proposal. The Corporate Resources documentation attachment should include documents showing verifiable evidence of the corporate contributions that are being proposed.



**35. Q:** Can Questions and Answers be viewed by all participants, and if so, is there a link to which you can direct us?

**A:** Yes and here is the link <http://www.nasa.gov/nextstep>

**36. Q:** I understand that NASA centers are not allowed to lead proposals, but I was unable to determine from the announcement if they are allowed to be partners, and if so, are they allowed to provide cost-sharing?

**A:** Please refer to the amended Section 3.3, Corporate Resources.

**37. Q:** Is there an approximate range of proposal costs that are expected or desired?

**A:** Please refer to Section 2.1, Funding Availability.

**38. Q:** Regarding the above referenced BAA, page 9 indicates Page Limitations by Proposal Section. If an offeror does not use the full page allocation for a specific section, can they use the 'unused' delta in another section? For example, if we only use 2 of the 3 pages for The Proof of Eligibility (Section II), can we use the 1 page we didn't use in Sections III-IV System Concept & Technical Approach?

**A:** No

**39. Q:** I am curious if funds from other government agencies (such as DoD SBIR funds) can be included in the cost match?

**A:** No, funds from other FEDERAL government agencies cannot be included as corporate contributions.

**40. Q:** Please confirm that if NASA were to provide \$1M (max) in BAA funding, then the proposer would be required to provide 50% of that number (\$500K) in matching funds or in-kind contributions acceptable to NASA.

**A:** The corporate contributions must be greater or equal to the proposed price, resulting in a corporate contribution of at least 50% of the total effort. Please refer to the amended Section 3.3, Corporate Resources

**41. Q:** Per the BAA Section 3.3, "Offerors are required to show a minimum of 50% corporate contribution." In order to clarify our understanding of this requirement, as an example, if a party were to propose a study effort requesting \$500K of NASA funding, the minimum corporate contribution must be equal to \$250K, resulting in a total study effort of \$750K. Is our understanding correct?

**A:** The corporate contributions must be greater or equal to the proposed price, resulting in a corporate contribution of at least 50% of the total effort. Please refer to the amended Section 3.3, Corporate Resources

**42. Q:** Would the BAA be open to other forms of advanced propulsion that are not electric SEP, but which could out-perform high-powered electric SEP in terms of some combination of reduced cost, shorter trip times, larger payload and/or potentially reduced overall launch mass?"



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**A:** Yes. Please note the objectives for the Advanced Propulsion thrust are defined in Appendix A of the BAA. NASA will evaluate the proposed approach according to the evaluation criteria defined in the BAA.

**43. Q:** For a foreign participant in a US led proposal, can the "funding/sponsoring institution" (ref P 6 paragraph 4) be the foreign company itself? That is, can a foreign company participate with a US led team by contributing (self-funding) work in coordination with the US led team?

**A:** Yes, foreign participants are eligible to respond to the BAA, but must comply with the Guidelines for Foreign Participation which require there be no-exchange-of-funds. See section 3 of the amended BAA for more specifics on eligibility information and guidelines for foreign participation.

----- End of Questions Posted 21 November 2014 -----

**44.** We are planning to use *[Company A]* in our BAA because of their extremely valuable knowledge, experience and unique capability in xxxx systems. *[Company A]* has performed RDT&E work for NASA as a preferred subcontractor to several US primes such as *[companies yyy and zzz]*. *[Company A]* has or is working projects directly for ARC, LaRC, JSC, KSC on a variety of projects.

The BAA states:

" NASA's policy is to conduct research with foreign entities on a cooperative, no-exchange-of-funds basis (see NPD 1360.2, Initiation and Development of International Cooperation in Space and Aeronautics Programs). NASA does not normally fund foreign research proposals or foreign research efforts that are part of U.S. research proposals and will not do so pursuant to this BAA."

In this BAA, *[Company A]* will not be conducting research. *[Company A]* will be providing existing hardware design and fabrication capabilities and insights.

So, our questions are as follows:

**Q:** a. Can any of the NASA funds be used for this foreign subcontractor to us (*[Company B]*)? The BAA appears unclear. However, since *[Company A]* will not be doing research, but supporting us in the BAA, we think otherwise. Please confirm.

**A:** NFS 1835.016-70(a)(3) on foreign participation under broad agency announcements (BAAs) provides:.

**NASA funding may not be used for subcontracted foreign research efforts. *The direct purchase of supplies and/or services, which do not constitute research, from non-U.S. sources by U.S. award recipients is permitted.***

**Q:** b. What will NASA require of us to enable *[Company A]* to work as our subcontractor on the BAA? Do we need an official Technical Assistance Agreement (TAA) or something else, especially since they have been working US programs for a long time? I have reviewed the





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following guidance and find it confusing. We cannot afford submitting a full proposal to find out if NASA will not allow our foreign partner to participate, which might get us rejected outright.

**A:** See section 3.1 of the BAA. Section 3.1 provides that with foreign participation, “rather, cooperative research efforts are implemented via international agreement between NASA and the sponsoring foreign agency or funding/sponsoring institution under which the parties agree to each bear the cost of discharging their respective responsibilities.” Typically, these international agreements take the form of nonreimbursable Space Act agreements. Regarding Technical Assistance Agreements and other export licenses, applicants should determine the need for such authorizations in consultation with the appropriate export regulatory agency (e.g., Department of State or Commerce).

**45. Q:** The NextSTEP BAA says NEA secondary spacecraft are to be flown on the ARV in 2019 or later. EM-1 will be launching two years sooner, and could send secondary spacecraft out as precursors to find the most valuable NEA for the ARV to target. Does the NextSTEP BAA actually exclude NEA targets? To my knowledge, there is no other opportunity on the street to get a spot on EM-1 for NEA destinations.

**A:** Please reference Appendix C of the BAA. The Small Satellite thrust of the NextSTEP BAA is for secondary payloads on EM-1. There are no specific NASA mission requirements for the solicited payloads but they must address the SKGs. There is no statement in the NextSTEP BAA that NEAs are excluded. A briefing regarding EM-1 secondary payloads has been posted to the NextSTEP website: [www.nasa.gov/nextstep](http://www.nasa.gov/nextstep)

**46. Q:** To quote the NextSTEP BAA:

"The ARM BAA secondary payload concepts are focused on the SKGs relevant to Near Earth Asteroids (NEAs). This BAA seeks to sponsor payloads that potentially address the broader set of SKGs for the Moon and Mars and that could benefit from a launch on the EM-1 mission."

That certainly sounds like This BAA will favor Moon and Mars proposals over NEA proposals; is this the case?

**A:** Please refer to Appendix C of the BAA for Small Satellite Missions for EM-1. There are no specific NASA mission requirements for the solicited payloads but they must address the SKGs. There is no statement in the NextSTEP BAA that NEAs are excluded. This BAA has a broader scope than the ARM BAA in this particular thrust area.

**47. Q:** For Small Satellite operations, will NASA be supporting ground operations and communications, or will these be considered tasks assigned to the proposing team?

**A:** These requirements depend upon the proposal. Please refer to Appendix C for Small Satellite objectives and the briefing posted to the website at [www.nasa.gov/nextstep](http://www.nasa.gov/nextstep) entitled "Space Launch System Secondary Payloads Overview".

**48. Q:** The Amendment issued on 11/18 seemed to change the intent of matching corporate contribution. By adding the phrase "made within the last 5 years," is it NASA's intent that the 50% corporate contribution requirement is for past year contributions only, and if proposing future contribution in order to meet the 50% contribution requirement, will NASA still consider





such proposals for award? How will the time phasing of past and future contributions be valued, if at all, in the analysis done for Evaluation Factor #3 – Price?

**A:** Please refer to amended Section 3.3, Corporate Resources. It is not NASA's intent to limit concurrent and future corporate contributions. The 5 year reference is intended to limit how far back previous investment may be counted toward corporate resources. Please refer to question 32 above. The corporate contributions must be greater or equal to the proposed price, resulting in a corporate contribution of at least 50% of the total effort.

**49. Q:** Since proposals may include proprietary or competition sensitive information, will NASA accept proposal submittal via a secured information exchange email, with the proposer providing a password for access? If so, will NASA allow for pre-coordination of secured email exchange prior to submittal?

**A:** The NASA email exchange server is approved for proprietary or competition sensitive information in encrypted files. NASA will allow for pre-coordination of password access prior to submittal.

**50. Q:** On page 7, we are not clear about 3.3 Corporate Resource. It says "Offerors are required to show a minimum of 50% corporate contribution". Does that mean *[entity A]* needs to find a corporate to contribute 50% of the proposed project total cost even if we are academic institute?

**A:** Refer to amended Section 3.3, Corporate Resources. "Corporate Resources" includes non-federally funded resources. An entity does not need to be incorporated for private resources to count toward "Corporate Resources".

**51. Q:** Section 6.1 of the BAA describes the process by which NASA will evaluate and potentially award contract(s) to one or more winning proposals. If a company proposes a set of related but distinguishable and severable pieces of a partnership effort, will NASA evaluate the parts individually, and therefore potentially allow for negotiations to select for award those of greatest value to NASA, or must NASA make an "all or nothing" evaluation before any negotiations on the specifics of an award?

**A:** The BAA contains three thrust areas with objectives identified for each area. Please refer to Question 2 above. Please submit separate proposals for separate thrust areas.

**52. Q:** Could a company propose, in effect, a menu of potential partnership tasks relating to one of the three BAA appendix technical areas, each of which would be at least 50% privately-funded, from which NASA could select an optimal mix with minimum overlap of other selected proposals?

**A:** Please refer to question 2 in this document above. In accordance with the Federal Acquisition Regulations, proposals will be individually evaluated against the requirements and objectives defined in the BAA. A proposal for a thrust area may contain options for different potential partnerships.

**53. Q:** We have submitted a proposal for the CubeSat Launch Initiative (CSLI) and want to submit a detailed proposal for a deep space small satellite mission for the NextSTEP BAA. Will our proposal for NextSTEP jeopardize our CSLI proposal in any way?

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**A:** The CSLI and NextSTEP BAA are independent projects. Proposals for each are evaluated according to their respective, independent evaluation criteria.